UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,068	03/02/2001	Michael J. Ramadei	F-166	7731

7590 12/17/2003

Pitney Bowes Inc.
Intellectual Property and
Technology Law Departmen
35 Waterview Drive, P.O. Box 3000
Shelton, CT 06484-8000

EXAMINER	
MASKULINSKI, MICHAEL C	
ART UNIT	**PAPER NUMBER**
2113	6

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,068	RAMADEI ET AL.	
	Examiner	Art Unit	
	Michael C Maskulinski	2184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Non-Final Office Action

Claim Objections

1. Claim 4 is objected to because of the following informalities: "the fault patterns" lacks antecedent basis because of its dependency on claim 1. The Examiner believes that claim 4 is dependent upon claim 3 because this corrects the lack of antecedent basis. For purpose of examination, the claims have been interpreted as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuyama et al., U.S. Patent 5,596,712.

Referring to claims 1, 5, 8, and 13:

a. In column 2, lines 50-51, Tsuyama et al. disclose analyzing fault information of products (accessing machine data).

b. In column 2, lines 20-25, Tsuyama et al. disclose creating a fault tree representing causal relations between faults and causes thereof in the past in a tree structure on the basis of information concerning the structure and

characteristics of the product and storing the fault tree in a storage unit, wherein the branches of the fault tree are allocated with weighting coefficients, respectively (associating the machine data with at least one potential or actual fault indicia to determine at least one potential or actual fault). Further, in column 2, lines 30-34, Tsuyama et al. disclose responding to the input of the new fault information for searching for the fault tree in accordance with the weighting coefficients on the basis of the fault information stored in the storage unit to thereby determine the cause of the fault of the product (wherein the fault indicia guides the computer to a location other than the starting point of a fault tree to determine a diagnostic path within the fault tree).

Referring to claims 2 and 10, in column 6, lines 45-49, Tsuyama et al. disclose that real data such as the date of occurrence of the fault, phenomena or symptoms thereof, causes of the fault, measures as taken actually and the like are sent to a host computer center to be stored as records in a database (wherein the machine data is received in a log file).

Referring to claims 3 and 6, in column 7, lines 38-67, Tsuyama et al. disclose a tree representing causal relations (associating one or more fault patterns with a tree to determine a diagnosis for one or more faults).

Referring to claims 4 and 9, in column 7, lines 43-50, Tsuyama et al. disclose that the fault tree is initially configured on the basis of the information contained in the design specifications such as those of the structure and the characteristics of an apparatus or machine of concern or on the basis of the fault information obtained from

the customers concerning similar apparatus or machines (wherein the fault patterns are represented by one or more filters).

Referring to claim 7, in the Abstract, Tsuyama et al. teach determining a diagnostic of the fault in the machine based upon the fault tree.

Referring to claim 11:

a. In Figure 2, Tsuyama et al. disclose a data collecting/managing station connected to the work station and a hand-held computer (a communications module for communicating machine data between the machine and the system).

b. In column 2, lines 20-25, Tsuyama et al. disclose creating a fault tree representing causal relations between faults and causes thereof in the past in a tree structure on the basis of information concerning the structure and characteristics of the product and storing the fault tree in a storage unit, wherein the branches of the fault tree are allocated with weighting coefficients, respectively (a fault recognition module for analyzing the machine data to determine at least one potential or actual fault). Further, in column 2, lines 30-34, Tsuyama et al. disclose responding to the input of the new fault information for searching for the fault tree in accordance with the weighting coefficients on the basis of the fault information stored in the storage unit to thereby determine the cause of the fault of the product (an expert system module having a fault tree with a starting point, where the expert system module is guided through the fault tree at a location other than the starting point of the fault tree by the

determination of at least one potential or actual faults by the fault recognition module).

Referring to claim 12:

a. In column 6, lines 45-49, Tsuyama et al. disclose that real data such as the date of occurrence of the fault, phenomena or symptoms thereof, causes of the fault, measures as taken actually and the like are sent to a host computer center to be stored as records in a database (a machine coupled to a computer network, wherein the machine measures performance data of itself)

b. In column 2, lines 20-25, Tsuyama et al. disclose creating a fault tree representing causal relations between faults and causes thereof in the past in a tree structure on the basis of information concerning the structure and characteristics of the product and storing the fault tree in a storage unit, wherein the branches of the fault tree are allocated with weighting coefficients, respectively (the diagnostic system analyzes the performance data to determine if at least one potential or actual faults exists in the performance data of the machine). Further, in column 2, lines 30-34, Tsuyama et al. disclose responding to the input of the new fault information for searching for the fault tree in accordance with the weighting coefficients on the basis of the fault information stored in the storage unit to thereby determine the cause of the fault of the product (a diagnosis of at least one or more potential or actual faults as indicated at a location other than the starting point of a fault tree).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 2003/0135786 A1	Vollmar et al.
U.S. 2002/0083371 A1	Ramanathan et al.
U.S. Patent 6,634,000 B1	Jammu et al.
U.S. Patent 6,373,383 B1	Arrowsmith et al.
U.S. Patent 5,903,453	Stoddard II
U.S. Patent 5,581,694	Iverson et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MM

ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100